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a first memory circuit having an input coupled to an output of the buffer storage circuit for receiving a first section of the data stream;

a second memory circuit having an input coupled to the output of the buffer storage circuit for receiving a second section of the data stream wherein the first and second sections of the data stream are representative of different channels of an audio signal; and

a multiplexer circuit having first and second inputs respectively coupled to the outputs of the first and second memory circuits for selecting between the first and second sections in response to a selection signal to provide an interleaved output signal at an output.

12.(AMENDED)   A method of interleaving a data stream, comprising the steps of:

storing the data stream including storing data of the first section of the data stream and data of the second section of the data stream in a third memory location;

copying a first section of the data stream to a first memory location;

copying a second section of the data stream to a second memory location;

selecting between the first and second memory locations to produce an interleaved output signal and selecting between data stored in the first memory location and data stored in the second memory location, wherein the step of selecting further includes the step of selecting first data from the first memory location while transferring second data from the third memory location to the first memory location.

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15.(AMENDED)   A method of interleaving a data stream, comprising the steps of:

storing the data stream including storing data of the first section of the data stream and data of the second section of the data stream in a third memory location;

copying a first section of the data stream to a first memory location;

copying a second section of the data stream to a second memory location;

selecting between the first and second memory locations to produce an interleaved output signal and selecting between data stored in the first memory location and data stored in the second memory location, wherein the step of selecting includes:

transferring data from the third memory location to the first memory location in response to a first control signal; and

incrementing a first pointer representative of an amount of data stored in the first memory location;

decrementing the first pointer as data stored in the first memory location is selected; and

generating the first control signal after the first pointer decrements to a first predetermined value.

19.(AMENDED)   An integrated circuit, comprising:

a buffer storage circuit having an input coupled for receiving and storing a multimedia data stream;

a first memory circuit having an input coupled to an output of the buffer storage circuit for receiving a first section of the multimedia data stream;

a second memory circuit having an input coupled to the output of the buffer storage circuit for receiving a second section of the multimedia data stream wherein the first and

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second sections of the data stream are representative of different channels of an audio signal; and

a multiplexer circuit having first and second inputs respectively coupled to the outputs of the first and second memory circuits for selecting between the first and second sections in response to a selection signal to provide an interleaved output signal at an output.

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